

Claims

1. A device for sheet material corrugation including the transformable mandrel containing the plane elements pivotably connected in-between with the use of gas-proof fabric, the means for preliminary mandrel transformation including the removable vacuum chamber with the sealing roller and the vacuumization system, and the means for final mandrel transformation including the traverse with the drive providing its plane-parallel travel is characterized by that it includes the mechanism for putting the mandrel into the initial plane state containing two parallel slabs located one over another on either side of the mandrel and the drive providing their reciprocal travel.
2. A device according to claim 1 is characterized by that it includes the means for preliminary mandrel transformation made in the form of two systems of pushers rows installed correspondingly on the lower and the upper slabs.
3. A device according to claim 2 is characterized by that it includes the pushers with the individual drives providing their seesaw travel whereof the perforations in the slabs provide the consecutive interaction of the pushers with the transformable mandrel on its either side at locations of mandrel elements pivot connections at the intersection of saw-tooth and zigzag bending lines.
4. A device according to claim 2 is characterized by that the rows of the lower pushers are placed so that they can come into contact with the mandrel along the protrusions zigzag lines while the rows of the upper pushers – along the recesses zigzag lines.
5. A device according to claim 1 is characterized by that it includes the means for final mandrel transformation containing the second traverse located on the lower slab on the other side of the mandrel parallel to the first one and the drive providing its plane-parallel travel.

6. A device according to claims 2-3 is characterized by that the distance L between the pushers rows in the direction of saw-tooth bending lines of the mandrel is equal to

$$L = \sqrt{L_r^2 - h^2},$$

5 where L_r is the step of zigzag lines on the corrugated article development;
 h is the corrugated article relief height after the preliminary transformation.

7. A device according to claims 5 is characterized by that the corrugated article relief height h after the preliminary transformation is taken minimal so that
10 to provide further reciprocal transformation of the shaping mandrel with the blank
by means of force application from the side of traverses.